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DEPARTMENT OF WATER RESOURCES

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## BEFORE THE DEPARTMENT OF WATER RESOURCES

## OF THE STATE OF IDAHO

IN THE MATTER OF DISTRIBUTION OF WATER TO VARIOUS WATER RIGHTS HELD BY OR FOR THE BENEFIT OF A & B IRRIGATION DISTRICT, AMERICAN FALLS RESERVOIR DISTRICT #2, BURLEY IRRIGATION DISTRICT, MILNER IRRIGATION DISTRICT, MINIDOKA IRRIGATION DISTRICT, NORTH SIDE CANAL COMPANY, and TWIN FALLS CANAL COMPANY

AFFIDAVIT OF CHARLES M.
BRENDECKE IN SUPPORT OF
IGWA'S AND POCATELLO'S
MOTION TO COMPEL
PRODUCTION OF DOCUMENTS OR
IN THE ALTERNATIVE MOTION IN
LIMINE

STATE OF IDAHO	)
	) ss.
COUNTY OF ADA	)

Charles M. Brendecke, being first duly sworn on oath, deposes and hereby states as follows:

1. I am President of Hydrosphere Resource Consultants, 1002 Walnut, Suite 200, Boulder, Colorado 80302. I am a licensed professional engineer in Idaho, Colorado, Wyoming and Oklahoma. I have a Bachelor of Science degree in civil engineering from the University of Colorado and Master of Science and Doctor of Philosophy degrees in civil engineering from Stanford University.

- 2. My educational and professional experience is set forth in the *Affidavit of Charles*M. Brendecke filed with the Department in this matter on March 23, 2005 and in Exhibit A thereof, and incorporated herein by this reference.
- 3. I have been retained to provide expert analysis on behalf of Idaho Ground Water Appropriators ("IGWA") with respect to relevant issues of hydrology and ground water modeling, including analyzing and responding to the analyses prepared by the experts retained by the Surface Water Coalition ("SWC").
- 4. Pursuant to the January 10, 2006, Agreement executed by SWC, IGWA, and the City of Pocatello ("Expert Disclosure Agreement"), the parties agreed to exchange certain information and data considered by each of the parties' experts in preparing their written expert reports pursuant to the July 22, 2005 Scheduling Order. *See* Affidavit of Brad V. Sneed, Exhibit B. Through the Expert Disclosure Agreement, SWC agreed to provide IGWA with the specific information set forth in Exhibit A to the Expert Disclosure Agreement. Exhibit A to the Expert Disclosure Agreement sets forth three general categories of requested information: (1) Hydrology and Hydroclimate Data; (2) Ground Water Modeling Files; and (3) Accounting Model Files, Return Flow and Reach Gains Data.
- 5. On or about January 16, 2006, SWC supplied IGWA with a compact disc purportedly containing the information and data requested by IGWA in Exhibit A to the Expert Disclosure Agreement.
- 6. I have reviewed the information that SWC submitted to IGWA on that compact disc. The information and data files submitted by SWC to IGWA are inadequate and insufficient for the purposes of replicating the analyses performed by SWC's expert witnesses.
- 7. In some instances, SWC failed to provide IGWA with whole categories of requested data. SWC has not provided IGWA with: "VIC Model (exact version used), source

code and compiled model (specify platform and compiler used in model compilation), Input datasets, and Outputs from the UW VIC analysis described in Appendix X" or "Model input and output files for ESPAM ver 1.1 curtailment runs." *See* Exhibit A to the Expert Disclosure Agreement. Because SWC has failed to provide these categories of documents, I am unable to replicate SWC's experts' model runs and analysis. Therefore, it is currently impossible for me to critically review SWC's experts' analysis.

- 8. In certain cases, SWC has provided input datasets in spreadsheet format, but these spreadsheets are password protected, making it impossible to review the formulas or analyze the data they contain. It is thus impossible for me to replicate the analyses performed by SWC's experts. Without the ability to replicate SWC's experts' analyses, it is impossible for me to critically review SWC's experts' analysis. The following are the files requested by IGWA which have been produced by SWC as password protected spreadsheets: "[i]nput data used in calculating unregulated annual Snake River inflow above American Falls, Appendix Z"; "[s]pring flow data presented in Appendix AM"; "[d]ata for return flow calculations (presented in appendix AC of SWC rebuttal report)"; "[a]ll the raw diversion data and return flow data used to calculate returns as a percentage of irrigation diversions for Heise to Shelley, Shelley to near Blackfoot, Near Blackfoot to Neeley, Neeley to Minidoka, and Minidoka to Milner reaches"; "[t]he workbook or spreadsheet that includes all the data and calculations [related to the return flow calculations]": "[a]ll the temporal reach gains data used to develop Appendix AN figures of SWC rebuttal report"; and "[a]ll ground water level and reach gains data used to develop Appendix AO figures of SWC rebuttal report." See Exhibit A to the Expert Disclosure Agreement.
- 9. On January 19, 2006, IGWA sent a letter to SWC describing these deficiencies in the SWC materials received on or about January 16, 2006. *See* Affidavit of Brad V. Sneed,

Exhibit D. SWC responded with an email dated January 20, 2006. This email included a memorandum entitled "Second Information Response, Surface Water Coalition Experts, January 20, 2006" ("Second Information Response"). *See* Affidavit of Brad V. Sneed, Exhibit H. The memorandum provides an address to an FTP website where certain files of requested materials reside.

- password protected. The data can be viewed simply by opening the spreadsheet. The formulas in the spreadsheet may be viewed by entering the command, Tools, Options, View, Window Options, Formulas." However, the formulas that contain the methodology used by SWC in formulating its response cannot be viewed in their entirety when using the method specified by SWC. The formulas can be viewed only to the extent that the column width set by the SWC experts allows, and that column width cannot be changed in the password protected spreadsheets.
- 11. An image of the spreadsheet "UnregulatedInflow-Final.xls" is attached hereto as Exhibit A. In producing this image, my office was forced to make a screen snapshot of the file as viewed on the computer because the ability to print this spreadsheet is limited in the password protected version to a single table defined by the SWC. It is worth noting that it takes extra effort to password protect the spreadsheet, i.e., it would have been less work for SWC to provide unprotected versions of these files. Further, SWC has chosen to not provide the passwords to these files.
- 12. With respect to other requested data considered or relied upon by SWC's experts, SWC merely directs IGWA to internet sites where SWC says it obtained its data sets. However, SWC has not specifically indicated which specific data sets at those locations were relied upon in performing their analyses. SWC directed IGWA to the IDWR "observation well database" internet site in response to requests for the following data: "[h]istorical ground water level data

for wells plotted on map in Appendix AF"; "[g]round water level data for wells, if any, in addition to wells used in Appendix AF"; "[d]ata for wells presented in Appendix AK"; and "Data for wells and precipitation data presented in Appendix AL." *See* Exhibit A to the Expert Disclosure Agreement. I visited the IDWR observation well database site and could not there locate all of the wells that are analyzed and depicted in the SWC expert report. Because SWC has not provided IGWA with the exact data sets used by SWC in performing its analyses, I am unable to replicate SWC's experts' analysis. Therefore, it is currently impossible for me to critically review SWC's experts' analysis.

- 13. Furthermore, in reviewing the files residing at the internet site indicated by SWC in its Second Information Response, I discovered a file folder entitled "UW VIC," but this file folder contained no data. IGWA properly requested this information from SWC and it was supposed to be produced by SWC under the Expert Disclosure Agreement. *See* Exhibit A to the Expert Disclosure Agreement.
- 14. Additionally, IGWA requested the following Accounting model input files used in the SWC simulation of 2004 accounting: "[a]ll indicator files (main indicator file, reservoir storage rights indicator file, system indicator file, canal/pump indicator file)"; "[a]ll Hydrologic data files (exchange well history file, river flow history file, diversion history file, reservoir history file)"; "[a]ll allocation files (diversion allocation file, reservoir allocation file, miscellaneous allocation file)"; and "[e]xchange pump list file, diversion list file, and water rights file."; "all output files including report files"; "other files (system information file, diversion name file, river flow station name file)"; "source code and executable files." See Exhibit A to the Expert Disclosure Agreement. SWC provided some of these files, but not enough of them to allow me to actually run the model analysis that SWC's experts say they ran. Furthermore, the Accounting ZIP file that SWC provided to counsel for Pocatello is different

from the one that SWC provided to IGWA. The ZIP file provided to IGWA appears to have files for only one model run, while the ZIP file provided to Pocatello appears to have files for two model runs. However, neither ZIP file contains all the files necessary to replicate SWC's model runs. Missing files include: source code and executable files (the basic accounting model code); history files (hydrologic data files); and allocation files (water rights data files). Because SWC has not provided all of the requested input files that SWC used in making its model runs, I am unable to replicate SWC's experts' model runs and analysis. Therefore, it is currently impossible for me to critically review SWC's experts' analysis.

- 15. In reviewing the monthly diversion data disclosed by the SWC, it has become clear that those data were developed from daily records of historical natural flow and storage diversions of the SWC entities. Furthermore, the expert report submitted by the SWC acknowledges that such data were compiled for the entire 1930-2004 period. Several analyses in the SWC expert report rely explicitly on daily records of natural flow and storage diversions. However, SWC has provided these daily data for only selected years. Without having the entire 1930-2004 data set of daily natural flow and storage diversions, I cannot analyze and verify the calculations or conclusions reached by the SWC experts.
- 16. In my experience, it is routine and customary for experts in disputes such as this to exchange relied-upon information and data in a form that opposing experts can efficiently review and confirm, and that allows the opposing experts to replicate the analyses founded on that information and data.
- 17. As of today, SWC has not provided all of the requested input files that SWC used in making its model runs and analyses. Therefore, I remain unable to replicate SWC's experts' model runs and analyses and it remains impossible for me to critically review SWC's experts' analysis.

DATED this 24th day of January, 2006.

Charles M. Brendecke

SUBSCRIBED AND SWORN TO before me this 24 day of January, 2006.

[seal]



Notary Public for Colorado Idaho

Residing at Borse, Idaho

My commission expires 7-05-07

## CERTIFICATE OF SERVICE

I hereby certify that on this 24th day of January 2006, I served a true and correct copy of the foregoing by delivering it to the following individuals by the method indicated below, addressed as stated.

Mr. Karl J. Dreher, Director		U.S. Mail
Idaho Department of Water Resources		_ Facsimile
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EXHIBIT A